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THE PICATINNY VOICE



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Audacity, empathy keys to commander's leadership

BY CASSANDRA MAINIERO

Picatinny Arsenal Public Affairs

When Lt. Col. Ingrid Parker entered Sadiyah, Iraq, in 2010, it wasn't the crumbling buildings that held her attention. Instead, it was a new school standing in the desert.

"I always call it a 'jasmine,'" said Parker about the school. "A jasmine is a little flower in the desert that can just grow anywhere. And, out in Sadiyah—an improvised explosive device production area, where all the buildings had fallen down and few people lived—that school was a jasmine."

Parker has been Picatinny Arsenal's Garrison Commander since June 2014. The garrison's mission is to provide installation capabilities and services that help to sustain a community where service members, families, and civilians will thrive.

However, in 2010, Parker served as the executive and operations officer to a battalion commander in Fort Stewart, Georgia, and later served in Iraq, where she was responsible for managing the battalion personnel, its staff and equipment. And it was in Iraq where two federal police training teams approached Parker about visiting the Iraqi school.

"The federal police training team came to me and said 'hey, we rebuilt a school'—there was a lot of school building in Iraq—and they asked if I could be a guest speaker at this new school. I said 'OK,'" Parker recalled.

"When I got there, all the Iraqi women were in the back of the room. The men were in the center, and the American women, though we weren't in the back, were on the side.

"I didn't consciously notice it at the time, that all the Iraqi women were in the back, but I don't like a room divided," said Parker. "So, after my speech, as the Iraqi

girls gave a presentation and sang The Song of Baghdad, my interpreter and I went up and started to clap with all those girls.

"I have no idea why I did it. It was just an impromptu thing. But, it broke the space barriers of the room. All the Iraqi women started to come up front with me and then the Iraqi flag came up.

"When the ceremony was over, the Iraqi general asked: 'Why did you do that?' I thought he was reprimanding me, so I kept saying 'I don't know, I don't know! Was that OK?'" said Parker. "Then he said 'It's very OK' and gave me a hug, which I didn't expect at all. I thought he was going to say 'Don't do that. We're not allowed to do that.'"

With her experience at the school ceremony, Parker bonded with Iraqi women and became the organizer of the First Iraqi Women's Conference.

The conference focused on empowering women in Baghdad by connecting professional women (doctors, teachers, lawyers, child caretakers, etc.) and helping each other to be successful within the constraints of a male-dominated country.

That year, Parker also met an Iraqi single mother with four children.

"She [the mother] worked on my forward operating base," said Parker. "I thought I was going to meet a 'mousey' and quiet lady. Instead, I got an Iraqi woman who owned a fur coat, wore leggings and boots, and carried Jimmy Chu handbags. She was like a bull in a china shop. She was bigger than life.

"After I left [Iraq] I kept in contact with her because you don't meet those kinds of people every day," said Parker. "Then later that year, she [the Iraqi mother] told me some of her life story—her husband was killed early in the war and her son was hit by a car, but she still had



Photo by Todd Mozes

Lt. Col. Ingrid Parker has been Garrison Commander at Picatinny Arsenal since June 2014. As a lieutenant colonel, a student, and a mother, she says time management and intellectual curiosity are essential for maintaining balance at work.

four daughters and she fights hard to keep them safe.

"Her oldest daughter had Down syndrome and then one of her younger daughters was then diagnosed with Hodgkin's disease. She was upset and wanted to come to the United States for her daughter's treatment. So, I said 'OK. Let me see if I can help.'"

In 2011, Parker sponsored the family, who came to the United States for a daughter's chemotherapy treatment at the Mayo Clinic in Rochester, Minnesota. The family

See GARRISON COMMANDER, Page 6

Picatinny lightens Soldiers load, shaves 12 lbs off 81mm mortar

BY AUDRA CALLOWAY

Picatinny Arsenal Public Affairs

Following the successful fielding of the lightweight 60mm mortar system, Picatinny has begun delivering the new lightweight 81mm system to troops.

The new M252A1 81mm system is 12 pounds, or 14 percent, lighter than its predecessor, the legacy M252 mortar system.

"The new lightweight system reduces the load for dismounted battalion mortar platoons, while retaining the same durability, rates of fire, and range of the legacy system," said Lt. Col. Will McDonough, Product Manager Guided Precision Munitions and Mortar Systems (GPM2S) with the Program Executive Office for Ammunition at Picatinny Arsenal.

Picatinny engineers delivered the first 81mm M252A1 mortar systems to troops at Fort Bragg, North Carolina, earlier this month.

Mortar systems are an indirect fire weapon used to defeat enemy troops, materiel, bunkers and other infantry-type targets. The M252A1 fires the complete family of 81mm ammunition, such as high explosive, smoke, illumination, infrared illumination and practice cartridges.

"Lighter weight has been a user desire for the 30 years I've been with the government," explained Ted Greiner, GPM2S's Assistant Product Manager for 60 and 81mm mortar systems.

Overall, the 81mm system has dropped from 91 pounds down to 79 pounds.

To illustrate how important equipment weight reduction is to service members,

Greiner recalled the time he was coaching his son's little league game and another parent approached him.

"I'm sitting on the bench and all of a sudden this guy comes running across the field and I think he's going to tackle me. He says, 'You work at Picatinny? Do you work on mortars? Well you've gotta to make those things lighter. I humped those things thirty miles a day.'"

"The parent was a former Marine and wasn't in the service any longer. But (the weight of the mortar system) was so important to him that years later he came running across the field just to tell me about it. He was happy with the range, durability and everything else, but he wanted it to be lighter."

Greiner's team was able to reduce the mortar system weight by using new

materials.

"We used lighter materials, such as aluminum and titanium in the elevation and traverse mechanism that lower and lift the bipod and traverse it left and right, and nylon Kevlar for some of the internal gear parts."

The M252A1 consists of the following components: M253 cannon (tube), M177A1 bipod, M3A2 baseplate and the M67A1 sight unit.

The bipod now weighs 22.5 pounds, compared to 27 pounds. The baseplate has been reduced from 29 pounds to 23 pounds and the cannon dropped from 35 pounds down to 30.5 pounds.

All former 81mm systems are scheduled to be replaced with the new technology in 2016.

See MORTARS, Page 3

Picatinny employees receive Army's top awards for R&D

BY AUDRA CALLOWAY
Picatinny Arsenal Public Affairs

Seventeen Picatinny Arsenal scientists and engineers have won the Army's top award for science and technology.

The Army Research and Development Achievement Award is presented to a select group of scientists and engineers whose outstanding achievements have significantly advanced capabilities and contributed to the national defense. The Picatinny awardees represent five different R&D programs.

"Each year these awards recognize those scientists and engineers who have made a significant contribution to advance the Army's technical capability," said John Hedderich, III, acting director of Picatinny's Armament Research, Development and Engineering Center, or ARDEC.

"Our mission at Picatinny is to take care of our service members through the technology we develop and manage," Hedderich said. "Every innovation, advancement and improvement is an opportunity to save Soldiers lives."

Approximately one percent of all eligible Army scientists and engineers (S&Es) receive the awards each year.

"These S&E (science and engineering) personnel have distinguished themselves through their proven scientific and technical excellence or leadership," according to a Nov. 5, memo by Mary Miller, deputy assistant secretary of the Army for Research and Technology, announcing the award winners.

Dr. Jared D. Moretti, Dr. Jesse J. Sabatini, Dr. Anthony P. Shaw, Robert Gilbert, Jr, and Gary Chen received the award for their work developing an environmentally-friendly yellow smoke formulation for the M194 hand held signal.

Gordon Cooke, Robert DeMarco, Michael Dokachev, Marc Federico, Elizabeth Mezzacappa, and Dana Perriello were recognized for their work on Analysis of Gunner Protection Kit

Approximately one percent of all eligible Army scientists and engineers receive the awards each year.

Configurations.

The team created the Virtual Employment Test Bed (VETB), a low-cost simulator that measures and analyzes how well systems perform in the hands of experienced Soldiers in order to improve the technology. In his former position as an ARDEC Military Deputy, Lt. Col. John Thane, now at the Munitions Center of Excellence at Fort Benning, Georgia, also contributed to the project.

Ernest L. Baker, Nausheen Al-Shehab, and David G. Pfau were honored for the development of a new, insensitive munitions (IM) technology called composite particle impact mitigation sleeves (C-PIMS), which helps to prevent anti-armor warheads from exploding if shot at or hit by shrapnel or a roadside bomb. Nicholas Peterson and Matthew Triplett of the Aviation and Missile Research, Development and Engineering Center were also recognized for this project.

Daniel L. Cler was recognized for his research on suppressor technology for military automatic weapons and light machine guns. Suppressor technology reduces the sound emitted from a firing gun. Contributing to this project were John Bailey, U.S. Special Operations Command, Dr. James Klett, Department of Energy/Oak Ridge National Laboratory, Dr. William C. Moss, Department of Energy/Lawrence Livermore National Laboratory, Andy Anderson, Department of Energy/Lawrence Livermore National Laboratory and Thomas Puckett, Army Research Laboratory.

Dr. Jesse J. Sabatini and Eric A. Latalladi were honored for development of barium-free M159 white star illuminant.



Picatinny inventors awarded patent awards for safer, cheaper pyrotechnic green light

Picatinny Arsenal inventors Jesse J. Sabatini, Jay C. Poret and Russell N. Broad were among the winners of the 2014 Thomas Edison Patent Awards for their work in producing safer and cheaper green light for use in pyrotechnics.

Nearly 50 inventors and 13 New Jersey companies and universities were recognized at the 35th Patent Award Ceremony Nov. 6 at the Liberty Science Center in Newark. The awards are presented by the Research & Development Council of New Jersey.

The three Picatinny inventors were recognized with a patent award in the defense category for "Green Light Emitting Pyrotechnic Compositions."

It's a great honor because it means other people are looking at your work and they say, 'Hey this is very interesting and making a contribution,'" Poret said of the award.

The invention uses boron carbide compositions to produce safe, easy to use and low-cost green light. Traditionally, the Army and other U.S. military services, along with the civilian fireworks sector, used barium compounds and chlorinated organic compounds that are health hazards and produce cardiotoxic products.

This technology can be adjusted to produce different light outputs and different burning rates, depending on the fuel/oxidizer ratio and packaged illuminant configuration.

"There are not too many things in nature that will give off a green flame," noted Broad.

THE PICATINNY VOICE



Senior Commander Picatinny Arsenal and Deputy
Program Executive Officer Ammunition

Brig. Gen. Patrick W. Burden

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All manuscripts, photos or artwork may not be returned without prior coordination. Digital images should be submitted at a resolution of at least 200 pixels per inch.

Due to space limitations, the editor reserves the right to edit submitted articles. Contributions can be sent by e-mail to picavoice@conus.army.mil.

The editorial policy of The Picatinny Voice is to accept letters to the editor and commentaries.

Submissions must be signed or received via e-mail through your own account to be considered for publication, but writer's names may be withheld upon request. Opinions expressed are those of each author and not an official expression of the Department of the Army or the Command.

The PicatinnyVoice reserves the right to select, reject or edit letters and articles to meet space constraints, achieve clarity or for suitability considerations.

<https://www.pica.army.mil/eVoice>



Picatinny engineers delivered the first 81mm M252A1 mortar systems to the 3rd Brigade, 82nd Airborne Division at Fort Bragg, North Carolina, earlier this month. The new system is 12 pounds, or 14 percent, lighter than its predecessor, the legacy M252 mortar. The M252A1 fires the complete family of 81mm ammunition, such as smoke, illumination, high explosive, infrared illumination and practice cartridges.

Mortars now 12 pounds lighter

continued from Page 1

To develop and field this technology, GPM2S partnered with the Armament Research, Development and Engineering Center, Benet Labs, Army Contracting Center New Jersey, Watervliet Arsenal, and MaTech.

STANDARDIZED

"The legacy 81mm systems were originally purchased from the UK in the 1980s," explained McDonough. "We've made the systems lighter and also used Soldier input to incorporate additional changes."

The new 81mm bipod will now be in the "A" shaped bipod frame, similar to the bipod on the 60mm and the 120mm systems.

"The 'A' shaped bipod frame keeps training consistent so the user doesn't have to learn something unique for one system. So once someone gets familiar with one they can easily transition to another system," Greiner said.

EASIER MAINTENANCE

The M252A1 requires less maintenance because its internal gears are greaseless, which means they do not have to be lubricated by grease and oil.

The nylon Kevlar is reinforced with composites and protective coatings infused with lubricants that eliminate the need for external lubrication.

60MM LIGHTWEIGHT MORTARS

PEO Ammunition began fielding the lightweight M224A1 60mm mortar systems in July 2010.

More than 1,300 M224A1 60mm lightweight mortar systems have been fielded so far.

"The units love them. So far we have received a lot of positive feedback," Greiner said of the 60mm systems.



Photo by Todd Mozes

Eight employees at Picatinny Arsenal were among the recipients of Firepower Awards. Front row, left to right: Anne Marie Petrock, Anthony L. D'Agosto, Jeffrey R. Brunozzi, Jennifer Ann Cordes and Trelane Clark, accepting the award for Lt. Col. Philip R. Clark, who is deployed in Afghanistan. Back row, left to right: Retired Lt. Col. Brian E. Bosworth, William F. Morelli, Douglas A. Bell, Dave Council accepting the award on behalf of Brett Flaugh, David L. Rogers and Matthew P. Evangelisti. Not pictured are Gen. Raymond T. Odierno, Chief of Staff for the U.S. Army, Christopher R. Seacord, Albert Zalcmann and Paul Boudreau.

Amerspek remembered at Firepower Awards

The Picatinny Chapter of the National Defense Industrial Association held its 34th annual Firepower Awards Luncheon at the Skylands in Randolph Nov. 5, presenting 15 awards that included eight persons who work at Picatinny Arsenal.

This year the chapter dedicated its program in memory of John P. Amerspek, a lifelong friend and supporter of Picatinny Arsenal who passed away on Christmas Day 2013.

Gen. Raymond T. Odierno, Chief of Staff of the U.S. Army, was the recipient of the first "John P. Amerspek Memorial Firepower Award."

The award recognizes unwavering support and contributions to the Army and the individual Soldier, something to which Odierno has committed a lifetime of dedicated service.

Odierno was unable to attend the event, but thanked the organization by way of a video.

Amerspek was 92 and a World War II veteran and Picatinny employee. He retired in 1981 after nearly 40 years of military and civilian service.

The Armament Research, Development and

FIREPOWER AWARD RECIPIENTS 2014

General Raymond T. Odierno (Chief of Staff for the U.S. Army)	John P. Amerspek Memorial Firepower Award
Douglas A. Bell (General Dynamics-OTS)	Wilfred Hosking Production Award
LTC (R) Brian E. Bosworth (ARDEC)	Firepower Technology Award
Paul A. Boudreau (President, Morris County Chamber of Commerce)	Chapter Appreciation Award
Jeffrey R. Brunozzi (General Dynamics-OTS)	Wilfred Hosking Production Award
LTC Philip R. Clark (PM-MAS)	Firepower Management Award
Anthony L. D'Agosto (ARDEC)	Firepower Technology Award
Mathew P. Evangelisti (ARDEC)	Victor Lindner Development Award
Brett Flaugh (Winchester)	Wilfred Hosking Production Award
William F. Morelli (SAVIT Corp)	Victor Lindner Development Award
David L. Rogers (Navy)	Victor Lindner Development Award
Christopher R. Seacord (PM-MAS)	Firepower Management Award
Albert Zalcmann (UTRS)	Firepower Management Award
Jennifer Ann Cordes, Ph.D. (ARDEC)	Scientific Achievement Award
Anne Marie Petrock, Ph.D. (ARDEC)	Scientific Achievement Award

Engineering Center or ARDEC dedicated its executive conference room after Amerspek in honor of his accomplishments and support to the Army.

Outside the conference room is a bronze plaque bearing his likeness and the phrase "Soldier, Leader, Patriot, 1942-1981."

'Our Heroes Christmas' concert slated for Dec. 4

BY CASSANDRA MAINIERO

Picatinny Arsenal Public Affairs

Picatinny will hold a concert and free buffet for its warfighters, civilians, and contractors Thursday, Dec. 4 from noon to 1:00 p.m., at the arsenal's Old Forge Chapel.

The concert is Picatinny's way of saying "Thank you for your service" and "Merry Christmas" to its workforce. It will host six performers, including Regan Ryzuk, Wayne Farley, Mark Dacey, Marty Fogel, Bobby Marks, and Tim Metz.

Ryzuk began touring with various ballet companies that laid the groundwork for one of his best-known compositional works—"48 Preludes

and Fugues." Farley began his music career in a group called Found Free. But by the 1986, he became the lead guitarist for David Meece. Dacey has performed songs from American pop to classic rock n' roll. Fogel spent several years performing with rock artist, Lou Reed, and demonstrates a style that connects jazz tradition, avant-garde, idioms and pop stereotypes.

Bobby Marks works with mandolin, guitar, and vocals and Tim Metz's instruments include upright bass, electric bass and tuba.

For more information, contact Angela Koutselas at 973-724-2543 or email her at angela.koutselas.civ@mail.mil.

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Senior commander holds first town hall at Picatinny



Photo by Erin Usawicz

Brig. Gen. Patrick W. Burden presided over this first town hall Nov. 13 as Picatinny Arsenal Senior Commander. "We are doing things here that no one else does in the United States and only a few other places in the world are doing things similar to what we are doing," Burden said.

BY LAUREN POINDEXTER

Picatinny Arsenal Public Affairs

"I've been here almost a month and I am learning that we have a very important mission and a very unique mission," said Brig. Gen. Patrick W. Burden during his first installation town hall Nov. 13 as Picatinny Arsenal Senior Commander.

Burden referred to the arsenal as one of the Army's best kept secrets. "We are doing things here that no one else does in the United States and only a few other places in the world are doing things similar to what we are doing," Burden said.

Burden became Deputy Program Executive Officer for Ammunition and the Commanding General for Picatinny Arsenal on Oct. 20, leading the mission to develop and obtain conventional and advanced munitions to increase the warfighter's combat power.

His charge is to ensure that acquisition professionals and the other tenant organizations on the arsenal get the necessary support so they are able to meet their mission.

GOOD STEWARDS OF OUR FUNDS

Burden also talked about the importance of being prepared and being good stewards of our funds.

Like other military services, the Army faces budget constraints and downsizing, measures that underscore the need to promote efficiency and cost savings whenever possible.

Burden noted that the garrison team won the Secretary of the Army Energy and Water Management Award, saving the installation over \$13,000 by implementing energy conservation measures.

"We are doing things like that to make sure that every dollar saved goes to ensuring that we have the right number of Soldiers or we can fund that acquisition program to make sure the Soldiers have the right equipment on the battlefield," Burden said.

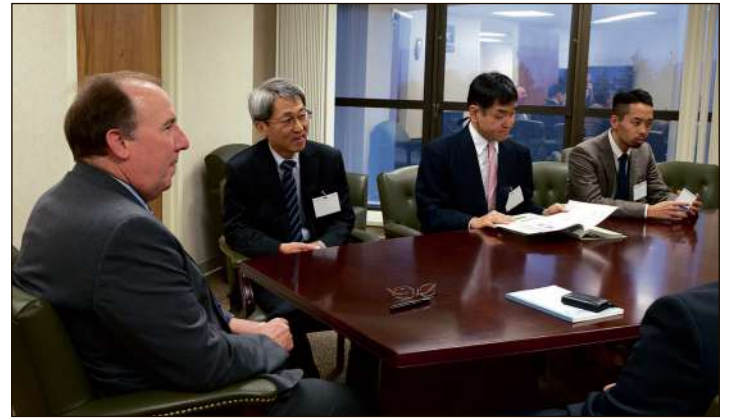
Burden concluded by recognizing the veterans in the room, the importance of team work and developing future leaders.

The general also shared the importance of his family.

"Family is what drives me to be a better person and a better Soldier. You're my newest family. It's important to work hard but don't neglect your family."

Other town hall topics included Ebola risk mitigation strategies, antiterrorism prevention, winter safety tips and organizational updates.

Senior leaders also recognized the noticeable accomplishments demonstrated by members of the workforce: two workplace heroes from the garrison, 68 humanitarian awards, five employees who attained 35 years of service in the garrison, and the Edison Patent Award to three inventors involved in pyrotechnics research.



(Left) John Hedderich, Acting Director of the Armament Research, Development and Engineering Center, hosted a Japan Ministry of Defense (MoD) Technical Research Development Institute Young Engineer and Scientist Visit on Nov. 17. Seated to Hedderich's left are Dr. Masaki Kurosawa, Director, Electronic Systems Research Center, TRDI, Japan MoD; Dr. Soichi Matsuura, Cooperation Coordinator, TRDI, Japan MoD; and Yoshihisa Ueda, Ammunition and Energetics Research subject matter expert.



Photo by Todd Mozes

RDECOM CHAPLAIN COMES TO ASSESS PICATINNY

Lt. Col. Juan Crockett, Command Chaplain for the Research, Development and Engineering Command, came to Picatinny Arsenal Nov 13-14 to assess the spiritual welfare of the workforce, the availability of counseling venues and the primary concerns of the leadership.

On Nov. 13, Crockett hosted a Resiliency and Moral Leadership forum with senior leaders of the Armament Research, Development and Engineering Center or ARDEC.

Crockett gave an overview of resilience, its benefits and discussed the Army family, Army values and how the health and wellness of the workforce begins with senior leaders.

Throughout his two-day visit, Crockett toured a number of ARDEC laboratories, receiving an overview of the center's capabilities and how the lab functions are interconnected to enhance the greater ARDEC mission and ultimately support the warfighter.

Matthew Stracco of the ARDEC Human Capital Management Office briefed Crockett on ARDEC's Wellness and Resiliency Initiatives. These initiatives directly support Crockett's visit and are part of Objective Four of the ARDEC Strategic Plan.

Crockett also visited other installation operations, including the garrison's Army Community Service. This portion of the tour was intended to demonstrate how ARDEC, the garrison and other tenant organizations at Picatinny Arsenal are working together to cultivate a climate of synergy, which supports the wellness of the Picatinny community as a whole.

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Soldiers of the future will generate their own power

BY JEFF SISTO

NSRDEC Public Affairs

NATICK, Mass. --Wearable technologies may provide U.S. Soldiers with on-the-move, portable energy and reduce the weight of gear they carry into combat.

Researchers at the Natick Soldier Research, Development and Engineering Center, or NSRDEC are developing Soldier-borne energy-harvesting technologies. During the Maneuver Fires Integration Experiment, or MFIX, a combined, multi-phase joint training exercise held in September 2014, at Fort Benning, Georgia, researchers tested prototype energy-harvesting technology solutions.

"My initial impression is that they fulfill a need for instant power generation on long-range missions when displaced from traditional resupply methods," said Sgt. 1st Class Arthur H. Jones, an infantryman with the Maneuver Center of Excellence who participated in the demonstration.

A sharp rise in Soldier-worn power capabilities has resulted in a dramatic increase in the number, variety and weight of batteries carried by warfighters in the field.

CAPTURING ENERGY

This weight prompted NSRDEC researchers to begin developing and evaluating small, lightweight, efficient, on-the-move, portable energy-harvesting and distribution systems that eliminate the need to carry extra batteries.

Energy harvesting works by capturing small amounts of energy that would otherwise be lost as heat, light, sound, vibration or movement.

It uses that energy to recharge batteries and provide power for electronic devices such as a Soldier's communication equipment, sensors, or battlefield situational displays.

Researchers first demonstrated the concept to Army and government representatives at Fort Devens, Massachusetts, in April 2014.

The demonstration consisted of experienced Soldiers wearing three energy-harvesting devices while traversing a four-mile course that included hard



A Soldier conducts dismounted maneuvers wearing Lightning Pack's Rucksack Harvester, Bionic Power's Knee Harvester and MC-10's photovoltaic Solar Panel Harvester during an energy-harvesting technology demonstration held at Fort Devens, Mass., by the Natick Soldier Research Development and Engineering Center. Photo by David Kamm, NSRDEC.

surfaced roads, lightly wooded areas, open fields and hilly terrain.

The technologies, which included wearable solar panels, backpack and knee kinetic energy-harvesting devices, are now being tested at MFIX as ways to reduce the weight and number of batteries Soldiers must carry to power electronic devices.

PRODUCING KINETIC ENERGY

Lightning Pack's Rucksack Harvester relies on the weight of the backpack to produce kinetic energy when the backpack oscillates vertically in response to the Soldier's walking or running stride.

As the backpack is displaced vertically, a rack attached to the frame spins a pinion that, in turn, is attached to a miniature power generator.

It is capable of producing 16 to 22 watts while walking, and 22 to 40 watts while running.

Bionic Power's Knee Harvester collects kinetic energy by recovering the power generated when walking.

The articulating device is attached to

both the upper and lower part of each leg and extracts energy when the knee is flexed.

Through software control, the knee harvester analyzes the wearer's gait and harvests energy during the phase of the stride when negative work is being performed.

This attests that the Soldier is exhibiting less metabolic activity descending when compared with descending without wearing the device.

MC-10's photovoltaic, or PV, Solar Panel Harvester operates by converting sunlight into electrical energy.

The panels, which cover a Soldier's backpack and helmet, are constructed from thin gallium arsenide crystals that provide flexibility to the panels material and allow it to conform to a Soldier's gear.

Under bright sunlight conditions, with the PV panel facing the sun, the backpack panel is capable of delivering 10 watts while the helmet cover panels provides seven watts of electrical power.

At MFIX, NSRDEC researchers collected power-management data

and assessed user feedback from the Soldiers wearing the technologies. Once the energy-harvesting technologies themselves are validated, the next step will be to sync with the Integrated Soldier Power Data System as a way to distribute the energy to a Soldier's electronic devices.

THE POWER TO MOVE

Additionally, "MFIX is looking at new concepts with energy-harvesting devices and how they fit in a tactical environment," said Noel Soto, project engineer, Power and Data Management Team of the NSRDEC Warfighter Directorate.

"MFIX is an important opportunity that allows us to quantify the energy-harvesting technologies that generate Soldier power on the move," said Henry Girolamo, lead, Emerging Concepts and Technologies, Warfighter Directorate, who has been involved with the effort since 2011.

"The MFIX Data collected in the experiment will inform us of the power harvester efficiency by comparing energy harvester equipped Soldiers and non-energy harvester equipped Soldiers and states of charge from the energy harvesters versus discharge from non-energy harvester equipped Soldiers."



A helmet cover equipped with MC-10's photovoltaic Solar Panel Harvester material was used at an energy-harvesting technology demonstration held at Fort Devens, Massachusetts, by the Natick Soldier Research Development and Engineering Center. Photo by David Kamm, NSRDEC

Do you know of a deployed Picatinny Active Duty Service Member?

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GARRISON COMMANDER

continued from Page 1

stayed in the Ronald McDonald Charities house and later immigrated to the United States on special immigration visas obtained with Parker's help.

"It takes people working on the behalf of other people to really change the world," said Parker. "Without our interactions together, [the Iraqi mother and her children], they wouldn't be U.S. citizens today. However, by working together—and we were in complete unison with our voices—it changed. Without working together as a team, the outcome would have been entirely different."

LOOKING FOR A LEADERSHIP ROLE

While her success as an Army leader might appear to be a natural path, Parker's decision to join the Army was coincidental.

A native of Chambersburg, Pennsylvania, Parker attended Shippensburg University, majoring in sociology with a minor in biology. In her sophomore year, after recognizing that using loans to attend summer school had left her in a financial bind, Parker searched for a way to pay for the upcoming semester.

She noticed a Reserves Officers' Training Corps (ROTC) table on campus. With the encouragement of sergeant at the table, Parker joined ROTC that year.

"I thought the study of people was interesting," said Parker, who initially took sociology to fulfill a general education requirement. "My professor did a lot of work with groups around the world and I'm interested in travel and studying our interactions with other people."

"Plus, when you're in the Army, especially leadership positions, you spend a good portion of your time working with people and learning how to influence people to do the things you need them to do, so you can complete the mission," added Parker.

Parker graduated from Shippensburg University with a degree in sociology in 1993.

She was then commissioned into the Military Intelligence Corps in 1994 and subsequently completed two masters' degrees: one in business administration from the University of Phoenix, and another in military art and sciences at



When stationed in Iraq, Lt. Col. Ingrid Parker organized the First Iraqi Women's Conference. Courtesy photo.

"Intellectual activism is really self-actualization: 'What does it take to get you involved into something?' And then, once you get involved, it's a question of 'What are you willing to lose?'"

the U.S. Army Command and General Staff College.

She is working on her doctorate in Humanities, Language Literacy and Culture Program, at the University of Maryland Baltimore County. She completed her course requirements and looks forward to completing the dissertation.

As part of her doctorate program, she is researching gender equality and the tacit or unstated rules in the workplace, family, or legal structures that inhibit gender equality for Iraqi women and women in the U.S. Army.

Her dissertation, titled "Women Leaders in Iraqi Civil Society and American Women-in Arms: An Army Officer's Investigation into Similarities through Life Stories," focused on women leadership in Iraq and in the U.S. Army. Focusing on the journey of women in the Army and Iraq, it highlighted how to improve the lives of women in both areas.

For Parker, getting involved with an issue has a number of dimensions.

"Intellectual activism is really self-actualization: 'What does it take to get you involved into something?' And then, once you get involved, it's a question of 'What are you willing to lose?'" explained Parker. "Women and a lot of organizations mask the compromises that women make to be successful in male-led organizations. There is a price tag for our success."

BECOMING A LEADER

Parker has served in every area of the Department of Defense—tactical, strategic, and force-providing units. Her roles have ranged from company commander to special staff officer to counter-terrorism senior operations leader.

Before coming to Picatinny, she was assigned to the National Security Agency at Fort George G. Meade, Maryland, to working with inter-agency processes. She is a career military intelligence officer.

"Everyone says that's an oxymoron—'military intelligence.' How do you put those two words together?" Parker said with a slight laugh.

"However, the thing about military intelligence is that sometimes you don't know about our successes. We can't tell you when we're good at something because we're protecting trade craft and our understanding of the enemy. We're quiet professionals and we're OK with that."

"It actually reminds me a lot of ARDEC," said Parker, referring to the



Photo by Todd Mozes

Garrison Commander Lt. Col. Ingrid Parker was a good sport at Picatinny Community Day by willing to get drenched as part of the fund-raising dunk tank.

"The thing about military intelligence is that sometimes you don't know about our successes. We can't tell you when we're good at something because we're protecting trade craft and our understanding of the enemy. We're quiet professionals and we're OK with that."

largest organization at Picatinny Arsenal, the Armament Research, Development and Engineering Center. Its mission is to empower, unburden, and protect the warfighter by providing superior armaments solutions that dominate the battlefield.

"Approximately 90 percent of our Army's lethality and weapon systems come from posts just like Picatinny. Without that, you wouldn't have lethality in the force. Military intelligence is the same way. We provide information for leadership, so that they can make informed decisions to keep our homeland and our forces safe."

Over her career, Parker has received several military awards, including two Bronze Star Medals, the Defense Meritorious Service Medal, two Meritorious Service Medals, six Army Commendation Medals, two Joint Service Achievement Medals, four Army Achievement Medals, a National Defense Service Medal as well as a Military Outstanding Volunteer Service Medal.

"Honestly, I never meant to serve 22 years in the Army," Parker admitted. "But, I've always loved the Army and, for women, the Army offers leadership and career development that is just not the same in the civilian community."

THE POWER OF EMPATHY

With a background of 22 years of active service, a doctoral student, a mother, and Picatinny's new Garrison Commander, Parker says that time management and intellectual curiosity are essential to maintaining balance.

"I have a lot of intellectual curiosity—meaning that I always look for more education. I always question what someone says," said Parker. "It drives more education because you can take any

phenomenon and really start to see the root cause and see how the phenomenon works in a multi-faceted way."

In addition, Parker cites empathy as one of her key strengths as a leader. However, Parker says empathy differs from sympathy. Sympathy is when you acknowledge another's feelings and provide comfort. Empathy when you acknowledge another person's feelings because you have also experienced it.

"What I've learned is that the Army tries to deal with things on a non-emotional level, but the real deal is that all the people in the organization have some level of emotion," said Parker.

"Each worker is dealing with their own personal emotions—anger, fear, sadness, happiness—and that is their reality. When the Army teaches you how to guide an organization, they want you to see the hard and steady ways to do it. But, the emotional side is still there."

For women entering the workforce who hope to eventually reach leadership positions, Parker states that intelligence, efficiency and audacity are vital for successful leaders.

"We shape our men to be audacious," said Parker. "But we don't shape our women to be audacious. We shape them to have a little more humility. Yes, you need humility, but you also need audacity. When in charge, be in charge."

As a leader, Parker refers back to what sociology taught her and prefers a win-win approach where everyone benefits from a particular course of action.

"The thing about leadership is that you could give an order to folks—'You will do this'—and I've totally done it," said Parker. "Still, when the rubber meets the road, it really takes people to execute the decision and that's why I like the win-win approach if possible."

Picatinny celebrates 2014 Red Ribbon Week Campaign



Army researchers develop pocket-sized aerial surveillance device

BY JEFFREY SISTO

NSRDEC Public Affairs

NATICK, Mass. -- Researchers at the U.S. Army Natick Soldier Research, Development and Engineering Center are developing technologies for a pocket-sized aerial surveillance device for Soldiers and small units operating in challenging ground environments.

The Cargo Pocket Intelligence, Surveillance and Reconnaissance program, or CP-ISR, seeks to develop a mobile Soldier sensor to increase the situational awareness of dismounted Soldiers by providing real-time video surveillance of threat areas within an immediate operational environment.

While larger systems have been used to provide over-the-hill ISR capabilities on the battlefield for almost a decade, none deliver it directly to the squad level, where Soldiers need the ability to see around the corner or into the next room during combat missions.

When Soldiers and small units need to assess the threat in a village, or in thick canopy terrain where traditional ISR assets cannot penetrate, the CP-ISR can be deployed to provide that capability.

"The Cargo Pocket ISR is a true example of an applied systems approach for developing new Soldier capabilities," said Dr. Laurel Allender, acting technical director, U.S. Army Natick Soldier Research, Development and Engineering Center, or NSRDEC.

"It provides an integrated capability for the Soldier and small unit for increased situational awareness and understanding with negligible impact on Soldier load



A British Soldier holds a Prox Dynamics' PD-100 Black Hornet, a palm-sized miniature helicopter weighing only 16 grams. Researchers with the U.S. Army Natick Soldier Research, Development and Engineering Center are testing the Black Hornet to provide squad-sized small units with organic intelligence, surveillance and reconnaissance capability. Courtesy photo by United Kingdom Ministry of Defense

and agility."

NSRDEC engineers investigated existing commercial off-the-shelf technologies to identify a surrogate CP-ISR system.

Prox Dynamics' PD-100 Black Hornet, a palm-sized miniature helicopter weighing only 16 grams, has the ability to fly up to 20 minutes while providing real-time video via a digital data link from one of the three embedded cameras and operates remotely with GPS navigation.

Tiny, electric propellers and motors make the device virtually undetectable to subjects under surveillance.

The size, weight and image-gathering capabilities of the system are promising advancements that fulfill the burgeoning requirement for an organic, squad-level ISR capability, but more work still needs to be done.

Several efforts are underway to develop three different aspects of the technology to ensure it is ready for the Soldier and small unit.

The first of these efforts is focused on a redesign of the digital data link to achieve compatibility with U.S. Army standards.

The second focuses on developing and integrating advanced payloads for low-light imaging, allowing for indoor and night operations.

Lastly, researchers are continuing to develop and enhance guidance, navigation and control, or GNC, algorithms for the CP-ISR surrogate system.

This will allow the airborne sensor to operate in confined and indoor spaces, such as when Soldiers advance from room to room as they are clearing buildings.

In November 2014, NSRDEC will collaborate with the Maneuver Center of Excellence, the Army Research Laboratory and other organizations to support the Army Capabilities Integration Center's Manned Unmanned Teaming (Ground) Limited Objective Experiment, by demonstrating the current capabilities of mobile Soldier sensors.

While the final system could be different from the surrogate system, NSRDEC officials said they are focused on proving the basic capability first.

Army sets 21-day quarantine for Soldiers leaving West Africa

BY DAVID VERGUN

Army News Service

WASHINGTON -- Army leaders have directed that Soldiers returning from Ebola-response efforts in West Africa go to a 21-day "quarantine-like program," said a Pentagon spokesman today.

The quarantine decision, supported by Secretary of Defense Chuck Hagel, affects Soldiers returning from West Africa under the command of Maj. Gen. Darryl

Williams, commander, U.S. Army Africa, said Pentagon Press Secretary Rear Adm. John Kirby.

Secretary of Defense Chuck Hagel will make a decision on whether or not to implement this force-wide, Kirby said, adding that the secretary shares the concerns expressed by all the service chiefs about the "safety and well-being of U.S. troops and their families" and said he appreciates the thoughtfulness and gravity of their recommendations.

Army leadership made the decision, Kirby said, "using prudence, caution and a conservative approach."

He added that each of the service chiefs "have wide latitude in making decisions involving force protection."

The quarantine involves daily monitoring and assessment, Kirby explained.

The Soldiers have access to exercise, recreation, good food and communications with friends and family -- just not direct contact for the 21-day period.

Chairman of the Joint Chiefs of Staff Gen. Martin Dempsey has stressed that U.S. troops won't come in contact with Ebola patients while in West Africa, Kirby said.

SUPPLIES REACH LIBERIA

In other news, the effort to contain the spread of the Ebola virus advanced Oct. 25, as "VEGA," a Defense Logistics Agency-contracted vessel, docked at the seaport in Buchanan, Liberia, and began off-loading its cargo.

VEGA transported 11,220,991 pounds of supplies provided by the U.S. to Liberia in support of Operation United Assistance, led by the U.S. Agency for International Development.

"This is not only good for Liberia," said



Efforts to contain the spread of the Ebola virus advanced Oct. 25, as "VEGA," a Defense Logistics Agency contract vessel, docked at the seaport in Buchanan, Liberia, and began off-loading its cargo.

Patrick Konneh, Liberian port manager at Buchanan. w" "This is also good for the Liberian sub-regions of Sierra Leone and Guinea, as Liberia takes the lead against Ebola."

VEGA was loaded at a port in Rotterdam, Netherlands, and spent 10 days at sea before arriving in Buchanan, Oct. 24.

There were close to 700 20-foot containers, and several 40-foot containers, aboard the vessel. Of those containers, 455 contained construction materials for Ebola treatment units, and three contained personal protection equipment such as chemical protection suits, boots and surgical masks for healthcare workers.

The U.S. Defense Logistics Agency is working to pre-position other items so they're ready to go in support of on-going efforts to halt Ebola.

Experts from each of the Defense Logistics Agency's supply chains were involved. These include professionals in distribution, warehouse operations, contracting and acquisition.

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New acting PEO, deputy lead PEO Ammo town hall

BY AUDRA CALLOWAY

Picatinny Arsenal Public Affairs

During his first town hall meeting as acting Program Executive Officer for Ammunition, Jim Shields emphasized PEO Ammunition's strategic importance to warfighters and laid out his command philosophy to the workforce.

Since the former PEO Ammunition, Brig. Gen. John McGuinness, retired, "you've never taken your foot off the accelerator," Shields said.

"We're at war and everything we do provides critical capability to the warfighter. And you guys have kept up the pace, and accelerated it in a lot of instances."

Shields explained that his command philosophy can be summarized by two rules: Do what's right and do it to the best of your ability.

"When you look at acquisition, you can slice it ten different ways—so what's the right way," he asked.

"I think what's right comes to what's legal and what's ethical," he said. "Ethics to me is doing what you say you'll do. You don't want to get into a situation where you say you'll do one thing and then you do something different. Your reputation is important to you and if you lose it, you'll really never get it back."

The town hall was also the first time that PEO Ammo's new deputy, Brig. Gen. Patrick Burden, personally addressed the entire workforce.

"I've served in a number of PEO's throughout my acquisition experience. And I tell you, I'm very excited about being here, listening to what all the PM (project management) shops are doing," Burden said.

A former field artillery officer, Burden said he was especially excited to learn about new artillery systems that Picatinny provided Soldiers in recent years.

"It's not about us—it's about the Soldier in the field. And we have to remember that. And I think you all are

"You're ensuring that we're providing the capability that is needed across the Army. But if we lose sight of that, we're losing sight of why we're here as an acquisition corps."

doing that," Burden said. "You're ensuring that we're providing the capability that is needed across the Army. But if we lose sight of that, we're losing sight of why we're here as an acquisition corps."

The meeting was the first PEO town hall-style gathering since the beginning of the 2015 fiscal year, and it provided Shields an opportunity to provide human resource updates to the workforce.

An Oct. 27, 2014, memo from the Assistant Secretary of the Army for Manpower and Reserve Affairs stated that as the Army total force is drawn-down, "a responsible civilian reduction strategy is necessary."

"There's nothing definitive in the memo, no cuts and no timeframes. I think (higher headquarters) is just trying to tie the potential for civilian reduction to what we know is already happening in the military ranks," Shields said.

He also noted that the Army is still operating under a hiring freeze. Exceptions include Army employees in long-term training, victim advocates and sexual assault and response coordinators, and civilians deployed to theater. Personnel actions that can be approved at the PEO-level include non-competitive temporary promotions not to exceed 120 days, management-directed reassignment, career ladder promotions and positions previously approved for in-sourcing.

Personnel actions requiring Army Acquisition

Executive approval include permanent fill actions, permanent promotions, temporary promotions exceeding 120 days, and accretion of duties.

Shields also reminded employees to update their Individual Development Plans every six months, and that current two-year reporting to obtain 80 Continuous Learning Points began Oct. 14 and ends Sept. 16, 2016.

Other announcements from the town hall include:

-- Beginning January 2015, a Senior Rater Potential Evaluation will be required annually for workforce personnel in positions at GS-12 and above positions, using a phased approach. The first phase will cover all Army Acquisition Corps members assigned to the Army Acquisition Logistics and Technology, Program Executive Offices, or Headquarters, USAASC in the grades of GS-13 to GS-15 (or equivalent). The Senior Rater Potential Evaluation (SRPE) documents an employee's leadership potential to serve in positions of increased responsibility and grade.

-- The Army issued fiscal year 2015 awards guidance on Feb. 28, 2014. The guidance allows granting of discretionary awards (performance/ special act/on the spot) for fiscal year 2015, not to exceed fiscal year 2012 spending levels and limited to 0.96 percent of total aggregate salaries. In addition, fiscal year 2015 quality step increases are not to exceed fiscal year 2010 spending levels. Supervisors are encouraged to use time-off awards judiciously.

-- PEO Ammo employees who need official passports can use the Armament Research, Development and Engineering Center Official Passport Processing Center. Passport photos can be taken by the installation photographers. Passport appointments can be scheduled through the Operations Center phone at (973) 724-3005, or group email: (usarmy.pica.ardec.mbx.ardec-operations-center@us.army.mil).

Kuwait deployment awaits members of Army Contracting Command—New Jersey

BY FRANK MISURELLI

Picatinny Arsenal Public Affairs

Army Contracting Command—New Jersey will soon deploy a team of five contingency contracting officers to Kuwait.

The team will fall under the command of the 926th Contingency Contracting Battalion and the 408th Contracting Support Brigade for a deployment lasting nine to twelve months.

"They are the first team of this type and will join three other teams from across the Army Contracting Command," said Lt. Col. James G. Craig, III, the battalion commander for the Contingency Contracting Officers or CCOs in ACC-NJ.

"Not only have they had to study the contracts that they will be taking over, they have also conducted extensive training to prepare for a deployment into a potential combat environment," Craig said.

The CCOs have been successfully working side-by-side with their civilian counterparts for two years at both Fort Dix and Picatinny Arsenal, learning both installation support and sophisticated weapons system acquisition.

According to Craig, "Six CCOs from ACC-NJ have deployed to serve in contingency environments in the Central Command area of operations. Additionally, two more CCOs supported Hurricane Sandy relief efforts.

"The team we are deploying now has been trained in a wide range of contracting fields, enhancing the overall capabilities of the team and the units they will support in theater," Craig said.

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Photo by Todd Mozes

Picatinny Arsenal employee Adam Hatley explains the computer software systems for the Common Remotely Operated Weapon Station (CROWS) to Lt. Gen. Thomas Spoehr, the director of the Army's Office of Business Transformation, during a recent visit to Picatinny. Spoehr's mission is to assist the Army in its continuous transformation of business operations across the enterprise and to more efficiently use Army resources. Hatley is with the Armament Software Engineering Center within the Weapons and Software Engineering Center, which is part of the U.S. Army Armament Research, Development and Engineering Center.



Photo by Todd Mozes

Approximately 30 U.S. Military Academy cadets enrolled in system engineering visited Picatinny Arsenal Nov 19 to gain a better understanding on how to develop weapons systems. (Above) Cadets examine ceramic transparent armor, which is being evaluated for application to the Objective Gunner Protection Kit turret. This technology is lighter and more protective than traditional glass-based transparent armor. The sample shown had undergone a successful ballistic vulnerability test. Efforts are underway to integrate the ceramic transparent armor into current and future Army tactical vehicle turrets.

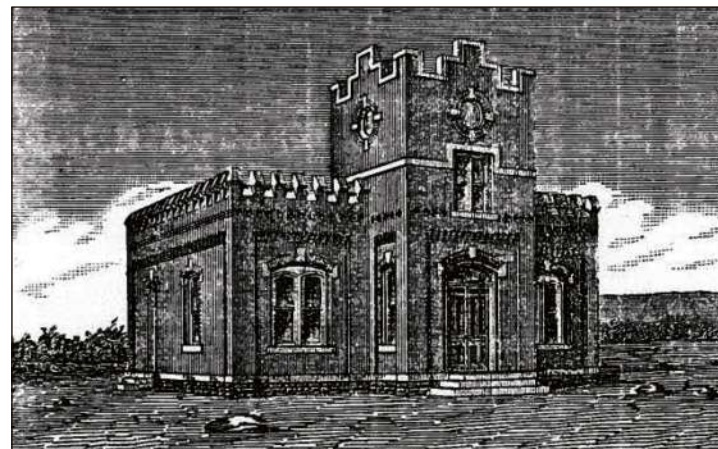
HALLOWEEN COSTUMES ABOUND AT ARSENAL



Photos by Todd Mozes



Looking Back ... At Picatinny



BY PATRICK J. OWENS, ARDEC HISTORIAN

Celebrating its 130th anniversary this year is Building 115. Many of you know the sedate brick quarters of this 1969 photo. Originally, the structure had the palatial configuration in the accompanying sketch from the installation commander's 1885 report to the Chief of Ordnance.

The intended mission was a combination guard and fire engine house but, despite an initial appropriation of \$10,7775, there was not enough money to finish the firehouse until 1891.

Initially, the building was used for office space. Later, it housed a school for post children. The 1926 explosion and considerable demolition and remodeling in the 1930s produced the present look.

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